

Local Hazard Mitigation Plan Annex City of Belmont

Introduction

The City of Belmont is a smaller, suburban city in San Mateo County, California. The City has a population of 26,000 people, based on the 2000 census¹. The City's budget is \$15.8 million and employs 130 full-time employees. The City provides local police services, while fire services are supplied by a separate fire district.

The Planning Process

The process of preparing this plan is familiar to the City of Belmont. The City has a Safety Element within its General Plan (last updated in 1995) that includes a discussion of fire, earthquake, flooding, and landslide hazards. In addition, the City routinely enforces the requirements of the California Environmental Quality Act (CEQA) requirements (which, since 1988, have required mitigation for identified natural hazards). The City has built on these pre-existing programs to identify gaps that may lead to disaster vulnerabilities and to work on ways to address these risks through mitigation.

Many of the activities conducted by the City were fed into the planning process for the multi-jurisdictional plan. The City participated in various ABAG workshops and meetings, including the general "kick-off" meeting and the soft-story charrette. In addition, the City has provided written and oral comments on the multi-jurisdictional plan. Finally, the City provided information on facilities that are viewed as "critical" to ABAG.

Key City staff involved in identifying and prioritizing mitigation strategies appropriate for the City include the Community Development Director, Public Works Director, Parks & Recreation Director, Finance Director and Police Chief. At the first meeting, the general priorities and appropriate City departments were identified. The second meeting identified preliminary budgets and potential funding sources for strategies designed as "High" priority. The City provided the opportunity for the public to comment on the DRAFT mitigation strategies selected by City staff at the City Council meeting on April 26, 2005. The resolution adopting the plan and strategies was approved by the City Council on October 25, 2005. The mitigation strategies will become an implementation appendix to this Safety Element

Hazard and Risk Assessment

The ABAG multi-jurisdictional Local Hazard Mitigation Plan, to which this is an Annex, lists nine hazards that impact the Bay Area, five related to earthquakes (faulting, shaking, earthquake-induced landslides, liquefaction, and tsunamis) and four related to weather (flooding, landslides, wildfires, and drought). The San Andres fault zone lies about one mile from Belmont's western boundary. There are no known active faults within the City itself. Note that information on tsunami inundation is not included because the mapping of this hazard has not been completed

¹ For complete Census information on this city, see <http://www.bayareacensus.ca.gov/>.

for the area within San Francisco Bay. The City will work to include the mapping in this plan once the data are available, as stated in GOVT-b-24.

While the City has undertaken a number of general hazard mapping activities since the first Safety Element was prepared by the City, all of these maps are less detailed and are not as current as those shown on the ABAG website at <http://quake.abag.ca.gov/mitigation/>.

Information on disasters declared in San Mateo County is at <http://quake.abag.ca.gov/mitigation/disaster-history.html>.

The City examined the hazard exposure of City urban land based on the information on ABAG's website at <http://quake.abag.ca.gov/mitigation/pickdbh2.html>. Of the 2,728 urban acres in the City, 2,921 acres are in the highest two categories of shaking potential, in large part because the San Andres fault zone lies about one mile from Belmont's western boundary.

- ◆ There are no known active faults within the City itself.
- ◆ Earthquake shaking – The proximity of the San Andreas fault indicates that severe ground shaking can be expected throughout the City during a major quake along that fault. Shaking is likely to be amplified in the areas underlain by relatively unconsolidated deposits, especially in the eastern part of the City – see discussion of earthquake liquefaction, below.
- ◆ Earthquake-induced landslides - the California Geological Survey has not completed mapping of this hazard in the City of Belmont. However, because few areas have been mapped as landslides, this hazard is viewed as similar to that posed by weather-related hazards.
- ◆ Earthquake liquefaction – 538 acres are in areas of moderate, high, or very high liquefaction susceptibility.
- ◆ Tsunamis - While tsunamis may be a hazard in the City of Belmont, the mapping of the inundation area has not been completed at this time.
- ◆ Flooding - 47 acres are in the 100-year flood plain, while an additional 101 acres are in other flood-prone areas;
- ◆ Landslides - 71 acres are in areas of existing landslides.
- ◆ Wildfires - 26 acres are subject to high, very high, or extreme wildfire threat (because of the urban nature of the City), but 1,257 acres are in wildland-urban interface threat areas.
- ◆ Dam Inundation – 221 acres are subject to dam inundation.
- ◆ Drought – all 2,728 acres are subject to drought.

The City also examined the hazard exposure of infrastructure based on the information on ABAG's website at <http://quake.abag.ca.gov/mitigation/pickdbh2.html>. Of the 85 miles of roadway in the City,

- ◆ Earthquake faulting – San Andres fault zone lies about one mile from Belmont's western boundary. While there are no known active faults within the City itself, roads and pipelines crossing this fault and servicing the City will be disrupted.
- ◆ Earthquake shaking – All 85 miles of roadway are in the highest two categories of shaking potential;

- ◆ Earthquake-induced landslides – The California Geological Survey has not completed mapping of this hazard in the City of Belmont. However, this is unlikely to be an issue because no roads are in existing landslide areas.
- ◆ Earthquake liquefaction – 21 miles of roadway are in areas of moderate, high, or very high liquefaction susceptibility.
- ◆ Tsunamis – While tsunamis may be a hazard in the City of Belmont, the mapping of the inundation area has not been completed at this time.
- ◆ Flooding - 1 mile of roadway are in the 100-year flood plain, while an additional 4 miles are in other flood-prone areas.
- ◆ Landslides – 3 roads are in areas of existing landslides.
- ◆ Wildfires – While only one mile of roadway is subject to high, very high, or extreme wildfire threat, 30 miles of roads are in wildland-urban interface threat areas.
- ◆ Dam Inundation – 8 miles of roadway is in an area subject to dam inundation.
- ◆ Drought – is not a hazard for roadways.

Finally, the City examined the hazard exposure of critical health care facilities, schools, and city-owned buildings based on the information on ABAG's website at <http://quake.abag.ca.gov/mitigation/pickcrit.html>.

Of the critical facilities in the City,

- ◆ Earthquake faulting – San Andres fault zone lies about one mile from Belmont's western boundary. There are no known active faults within the City itself.
- ◆ Earthquake shaking – all 32 buildings are in the highest two categories of shaking potential.
- ◆ Earthquake-induced landslides – the California Geological Survey has not completed mapping of this hazard in the City of Belmont. However, because few areas have been mapped as landslides, this hazard is viewed as similar to that posed by weather-related hazards.
- ◆ Earthquake liquefaction – 9 critical health care facilities, or city-owned facilities are in areas of moderate, high, or very high liquefaction susceptibility, 3 schools are located in these areas.
- ◆ Tsunamis – While tsunamis may be a hazard in the City of Belmont, including to critical facilities, the mapping of the inundation area has not been completed at this time.
- ◆ Flooding – 0 critical health care facilities, 1 school, and 1 city-owned facility are in the 100-year flood plain; 30 of either critical health care facilities, schools, or city-owned buildings are in other flood-prone areas.
- ◆ Landslides – no critical health care facilities, schools, or city-owned facilities are in areas of existing landslides.
- ◆ Wildfires – 3 schools and 4 critical facilities are in wildland-urban interface threat areas.
- ◆ Dam Inundation – 9 of either critical health care facilities, schools, or city-owned facilities are in an area subject to dam inundation.

- ◆ Drought – Drought will not affect city buildings directly. The city does not operate a water-supply distribution system.

In spite of the areas of the City located in flood-prone areas, there are no repetitive loss properties in the City based on the information at <http://quake.abag.ca.gov/mitigation/pickflood.html>.

The City plans to work with ABAG during 2005 to improve the risk assessment information being compiled by ABAG by providing information on unreinforced masonry buildings and soft-story apartments located in the City.

Though drought is a potential problem in the City, it has not been fully assessed. The City will work with ABAG and various water supply agencies on this issue.

The City plans to work with ABAG to develop specific information about the kind and level of damage to buildings, infrastructure, and critical facilities, which might result from any of the hazards previously noted. The ABAG Annex states that ABAG will be doing this work in 2005 through early 2006.

As these impacts are not fully developed, the City has reviewed the hazards identified and ranked the hazards based on past disasters and expected future impacts. The conclusion is that earthquakes (particularly shaking), flooding, wildfire, and landslides (including unstable earth) pose a significant risk for potential loss.

Mitigation Activities and Priorities

As a participant in the ABAG multi-jurisdictional planning process, City of Belmont staff helped in the development and review of the comprehensive list of mitigation strategies in the overall multi-jurisdictional plan. The list was discussed at a meeting of the City Police Chief, Building Official, Public Works Director, Planning Director, and Assistant City Manager on April 6, 2005. At the meeting, all of the mitigation strategies were reviewed. The tentative decision on priority was made based on a variety of criteria, not simply on an economic cost-benefit analysis. These criteria include being technically and administratively feasible, politically acceptable, socially appropriate, legal, economically sound, and not harmful to the environment or our heritage.

Over time, we are committed to developing better hazard and risk information to use in making those trade-offs. We are not trying to create a disaster-proof region, but a disaster-resistant one. In addition, many of the strategies are existing City programs.

These draft priorities were submitted to the City Manager for review. An outline of the DMA 2000 Project was posted on the City web site with updates posted as the project moved forward. ABAG made an overview presentation on the DMA 2000 project at the April 26, 2005 City Council Meeting. This presentation was televised. The public was provided with an opportunity to comment on the project.

In addition, the City examined the hazard exposure information to City-owned critical facilities supplied by ABAG. Previous mitigation activities relating to City-owned critical facilities include the reconstruction of Fire Station 14 in November of 2003 and the remodeling & earthquake retrofit of the City Hall/Police Facility which is due to be completed in the third quarter of 2005.

The majority of strategies are either existing programs or not appropriate. No strategies are currently identified as having a High priority. However, several strategies are either Under Study or Not Yet Considered. It is likely that some of these strategies will be designated as a High or Moderate priority in the future.

The Plan Maintenance and Update Process

The City Manager's Office will ensure that monitoring of this Annex will occur on an on-going basis. In addition, the major disasters affecting our community, legal changes, notices from ABAG as the lead agency in this process, and other triggers will be used to assure the plan is kept up to date. Finally, the Annex will be a discussion item on the agenda of the meeting of City department heads at least once a year (typically, in April). At that meeting, the department heads will focus on evaluating the Annex in light of technological and political changes during the past year or other significant events. This group will be responsible for determining if the plan should be updated.

The City of Belmont is committed to reviewing and updating this plan annex at least once every five years, as required by the Disaster Mitigation Act of 2000. The City will contact ABAG four years after this plan is approved to ensure that ABAG plans to undertake the plan update process. If so, the City again plans to participate in the multi-jurisdictional plan. If ABAG is unwilling or unable to act as the lead agency in the multi-jurisdictional effort, other agencies will be contacted, including the County's Office of Emergency Services. Counties should then work together to identify another regional forum for developing a multi-jurisdictional plan.

The public will continue to be involved whenever the plan is updated, and as appropriate during the monitoring and evaluation process. Prior to adoption of updates, the City will provide the opportunity for the public to comment on the updates. A public notice will be posted prior to the meeting to announce the comment period and meeting logistics.